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Flying Operations

C-5 OPERATIONS CONFIGURATION AND MISSION PLANNING

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This document is new and must be completely reviewed.

Chapter 1 - POLICY

Chapter 2 - CONSOLIDATED EQUIPMENT TABLES

Chapter 1

POLICY

1.1. General. This regulation establishes basic configurations, standard equipment, and location of such equipment aboard the C-5 airplane. Included are weight and balance data listing standard weights and moments for use in completing DD Form 365-4, **Weight and Balance Clearance Form F-Transport/Tactical**.

1.2. Airplane Coding. This regulation provides coverage for C-5A, C-5B, and C-5A Space Canister Modified (SCM) airplanes. C-5A airplanes are designated by the letter **{A}** C-5B by the letter **{B}**, and C-5A SCM by the letter **{S}.** Portions of this regulation are designated by the use of these symbols to indicate applicability to C-5A, C-5B, or C-5A SCM airplanes. Items not designated as applicable to either **{A}**, **{B},** or **{S}** airplanes are applicable to all three series.

1.3. Responsibility. Air Force units performing services on the C-5 airplane, e.g. terminal services, support equipment branch, and life support, are responsible for configuring the aircraft with the equipment listed in this regulation or as outlined in mission directives. This includes stowage or installation of the equipment according to the configurations in this instruction and applicable installation directives (i.e. Technical Orders (TO) 1C-5A-2-2, 1C-5A-21, and 1C-5A-9). During preflight, aircrew personnel will ensure that required mission equipment has been provided and properly serviced, installed, or stowed.

1.4. Standard Configuration Codes. Use the letter codes in **Table 1.1** when referring to C-5 configurations. The number that identifies the configuration capability will follow the letter code. Each configuration code will be indicated in the mission directive.

Table 1.1, Standard Configuration Codes.

CONFIGURATION CODES	MISSION
CP	Cargo And Passenger
C	Cargo
P	Passenger
ADP	Airdrop Paratroop
ADC	Airdrop Cargo
ADPC-1	Dual Airdrop Configuration (Equipment and Personnel)

1.5. Deviations. Configurations in this instruction may require deviations for a specific mission. Evaluate each deviation carefully prior to mission operation to ensure maximum flight safety and compatibility with airplane equipment. Each mission directive will identify the basic configuration and the deviation, if necessary, to satisfy the mission requirement. In any case of deviation, give consideration to corresponding changes in required equipment and weight and balance revisions.

1.6. Weight and Balance. Configurations, equipment, and necessary supply changes to conduct airlift missions can affect the weight and balance of the airplane. To standardize equipment and the location of equipment, items shown in **Table 2.1**. will be use included in the basic weight of the airplane and remain on the airplane except for maintenance and inspection. Equipment in **Table 2.2** will be added as necessary and entered in reference 5, 6, or 7 of DD Form 365-4. For simplicity in operation when preparing DD Form 365-4, the loadmaster will enter the weight and moment data from the required equipment table for the applicable configuration. Adjustment will be made when actual onboard weights of these items vary from the data shown due to deviations.

1.7. Distribution. Organization commanders will establish a control system for distribution of this instruction. Commanders will maintain at least one copy will be maintained in each C-5 squadron operations' section that is readily accessible to operations and aircrew personnel. Additional distribution may includes the following agencies:

1.7.1. All levels of Staff operations

1.7.2. All levels of aircrew standardization offices

1.7.3. Command posts and operations centers

1.7.4. Squadron and port operations officer

1.7.5. Air terminal operations center Air freight management

1.7.6. Fleet service

1.7.7. Aircraft maintenance squadron commanders

1.7.8. Alternate mission equipment sections

1.7.9. Quality control and life support sections

1.7.10. One for each supplemental weight and balance handbook carried aboard the aircraft

1.8. Changes and Supplements. See AFI 11-2C-5V3, C-5 *Operations Procedures*, Chapter 1.

1.9. References. See AFI 11-2C-5V3 Attachment 1 and the following:

1.9.1. TO 1C-5A-1, *Flight Manual*

1.9.2. TO 1C-5A-1-2, *Partial Flight Manual,* C-5A (SCM) Airplanes

1.9.3. TO 1C-5A-2-1, *Ground Handling and Servicing*

1.9.4. TO 1C-5A-2-2, *Airframe*

1.9.5. TO 1C-5A-5-1, *Basic Weight Checklist*

1.9.6. TO 1C-5A-5-1-1, *Partial Basic Weight Checklist*, C-5A (SCM) Airplanes

1.9.7. TO 1C-5A-5-2, *Loading Data Manua*

1.9.8. TO 1C-5A-5-2-1, *Partial Loading Data Manual,* C-5A (SCM) Airplanes

1.9.9. TO 1C-5A-9, *Loading Instructions Manual*

1.9.10. TO 1C-5A-9-1, *Partial Loading Instructions Manual*, C-5A (SCM) Airplanes

1.9.11. TO 1C-5A-21, *Equipment Inventory List*

1.9.12. TO 1-1B-40, *Weight and Balance Data*

1.9.13. TO 1-1B-50, *Basic Technical Order for USAF Aircraft Weight and Balance*

1.9.14. TO 1C-1-71, *Listing of Cargo Tie-down Equipment Authorized for all Series Cargo Aircraft*

CHAPTER 2

CONSOLIDATED EQUIPMENT TABLES

2.1. Scope. All airplanes will be configured with the equipment listed in **Table 2.1**. This equipment will be included in the aircraft basic weight. Items listed in **Table 2.2** are added as necessary to attain a specific configuration and/or comply with mission directives.

2.2. Forms. AF Form 4127, **Passenger Information Cards (Flight Deck C-5 Galaxy**), and AF Form 4126, **Passenger Information Card (Troop Compartment C-5 Galaxy**). Inform passengers of the proper location and use of emergency equipment and exits (see AFI 11-202V3, *General Flight Rules*, for passenger briefing card requirements).

Table 2.1. Standard Equipment.

Item	Equipment	Quantity	Location
1	Aldis lamp/filters	1	Copilot's side console
2	Aviation (AV) fuels identiplate	1	Holder aft of navigator station
3	Cargo winch w/clevis	1	Winch compartment RBL 48 FS 470/2020. Winch computed in aft compartment
4	Cargo winch remote control grip assembly	1	Left side cargo compartment, FS 1215
5	Cord, interphone	1 (25-ft) 2 (50-ft) 1 (175-ft)	As required
6	**{A}{B}** Crash axe	3	Located according to TO 1C-5A-1
	{S}	2	or 1C-5A-1-2
7	Cryogenic vent nozzles	3	**{A}{B}** Loose equipment stowage container left side of cargo compartment FS 1774 and **{S}** airplanes FS684
8	Detent locking tee (pallet lock)	8	Container left side of cargo compartment FS 1774 **{S}** airplanes FS 684
9	**{A}{B}** Emergency escape breathing device (EEBD) or Protective	8	Located according to TO 1C-5A-1
	{S} breathing device	6	or 1C-5A-1-2
10	**{A}{B}** Emergency exit light	12	Located according to TO 1C-5A-1
		7	**{S}** or 1C-5A-1-2
11	Escape reel	24	Located according to TO 1C-5A-1
12	**{A}{B}** Escape rope	8	Located according to TO 1C-5A-1
	{S}	3	or 1C-5A-1-2

Table 2.1. Standard Equipment (continued).

Item	Equipment	Quantity	Location
13	**{A}{B}** Escape slide	5	Located according to TO 1C-5A-1
	{S}	1	or 1C-5A-1-2
14	Fan holder	4	Stowed as loose equipment
	Fan stop	1	in the cargo compartment
15	**{A}** Fire extinguisher	15	Located according to TO 1C-5A-1
	{B}	17	or 1C-5A-1-2
	{S}	10	***NOTE:*** Two additional 1-gallon HALON 1211 extinguishers are installed in cargo compartment, one on each side just fwd of the center wing area on airplanes not equipped with FE 1301.
16	**{A}{B}** First aid kit	22	Located according to TO 1C-5A-1
	{S}	7	or 1C-5A-1-2
17	Gloves, aramid	1 pr	Stowage box in fwd bunk room
18	Ground personnel restraint kit	1	Stowage box in fwd bunk room
19	Inflation hose, tire servicing kit	5	Loose equipment stowage container right side of cargo compartment, FS 684
20	Kneeling collar	4	Loose equipment stowage container left side of cargo compartment, FS 684
21	Kneeling pad extend pin	1	Loose equipment stowage container left side of cargo compartment, FS 684
22	Ladder, rope (stowed)	1	Stowed under floor of courier compartment FS 962
23	Ladder , utility	1	Stowed as loose equipment in the cargo compartment
24	**{A}{B}** Life raft	4	Located according to TO 1C-5A-1
	{S}	1	or 1C-5A-1-2
25	Mask, oxygen smoke	14	**{A}** Located according to TO 1C-5A-1
		16	**{B}** Located according to TO 1C-5A-1
		12	**{S}** Located according to TO 1C-5A-1-2 ***NOTE:*** New Scott 358-series mask w/goggles will replace smoke mask, MBU-5/P and MBU-10/P ***NOTE:*** Oxygen bottles in the latrines on **{A}** or **{S}** airplanes may be equipped with smoke masks
26	Oil, engine MIL-L-7808	72-quart	Stowed as loose equipment in a suitable container in the cargo compartment
27	Oil, hydraulic MIL-H-83282	48-quart	Stowed as loose equipment in a suitable container in the cargo compartment
28	**{A}{B}** Oxygen bottle	16	Located according to TO 1C-5A-1
	{S}	12	or 1C-5A-1-2
29	Pallet stop	4	**{A} {B}** Loose equipment stowage container left and right FS 1774 and **{S}** airplanes FS 684

Table 2.1. Standard Equipment (continued).

30	Pin, landing gear	5	Loose equipment stowage container left side of cargo compartment FS 684
31	Pressure door upper hinge lock block assembly w/F-valve safety guard	2	**{A}{B}** Loose equipment stowage container Right side of cargo compartment FS 1774 and **{S}** airplanes FS 684
32	Protective covers	33	Located according to TO 1C-5A-1
33	Restraint harness, aircrew, in-flight (PCU-17P) w/safety strap (HBU-6/P)(18'6")	2	Stowage box in fwd bunk room
34	Seat, student or instructor	1	Baggage compartment No 6 of courier compartment
35	Serving tray	20	Crew galley
	{A}{B}	75	Troop galley
36	Snatch block assembly	3	Right side of cargo compartment, FS 594 /1734 and left side FS 614
37	Strut limiter	1	Loose equipment stowage container left side of cargo compartment FS 684
38	Table, relief crew	1	Installed in relief crew compartment
39	**{S}** Tape MDR spare cassette	1	Aft bunk room
40	**{B}** Tape MDR spare cartridge	1	Avionics bay number 3
41	**{A}{B}** Tape MDR program cartridge	1	Avionics bay number 3
42	Technical publications	1 set	Stowed according to TO 1C-5A-5-1 or 1C-5A-1
43	Tie-down equipment		
	MB-1 chains and devices (10,000-lb capacity)	75	Located according to TO 1C-5A-9, 1C-5A-9-1, 1C-5A-5-1, or 1C-5A-5-1-1
	MB-2 chains and devices (25,000-lb capacity)	75	
	CGU-1/B Straps (5,000-lb capacity)	50	
44	Wheel chock	4	Stowed as loose equipment in the cargo compartment

Table 2.2. Required Mission Equipment.

Item	Equipment	Quantity	Location
1	Crew comfort items:		
	Blankets, large	12	Bunk area
	Blankets, small	8	Baggage compartment No 6 Courier compartment
	Pillows, large w/case	6	Bunk area
	Pillows, small w/case	8	Baggage compartment No 6 Courier compartment
	Hot cup	1	Crew galley
	Coffee pot	1	Crew galley
	{A}{S} w/hot plate	1	Crew galley
	Water container (5-gal)	1	Baggage compartment No 3 Relief crew compartment

Table 2.2. Required Mission Equipment (continued).

Item	Equipment	Quantity	Location
2	Passenger comfort items		
	{A}{B} Blankets, small	75	Troop compartment
	{A}{B} Pillows, small	75	Troop compartment
	{A}{B} Hot cup	1	Troop galley
	{A}{B} Coffee pot	1	Troop galley
	{A}{B} Water container (5-gal)	2	Troop galley
	{A}{B} Passenger service kit	1	Troop compartment
3	Life preservers - crew and passenger:		
	A/C (adult or child)	20	Flight deck
	{A}{B}	75	Troop compartment
	{A}{B} LPU-6/P (infant cot)	7	Troop compartment
	{A}{B} MB-1 (casualty)	2	Troop compartment
	{S} MB-1 (casualty)	2	Aft flight deck
4	Life preservers, crew LPU-2/P or LPU-10/P (AD or SAAM)		As required
5	Protective clothing kit:	2	baggage compartment No 3, relief crew compartment and "B" kit in the troop compartment closet ***NOTE:*** On **{S}** airplanes, "A" and "B" kit will be stowed in baggage compartment No. 3, Relief Crew Compartment
6	Cargo compartment Palletized seat kit	As required	Installed IAW TO 1C-5A-2-2
7	ADS kit (rails-fences and attachment equipment)	As required	Installed IAW TO 1C-5A-2-2
8	AMC passenger information card AF Form 4127 (AMC Form 370)	1 per PAX. seat 10	Stowed in seat pouch in courier compartment
	{A}{B} AF Form 4126 (AMC Form 370a)	75	Stowed in seat pouch in troop compartment
9	Shoring Kit, Plywood:		Stowed as loose equipment in the cargo compartment
	12" X 12" X 1/2"	8	
	12" X 12" X 3/4"	8	

Chapter 3

CONFIGURATION AND REQUIRED EQUIPMENT WEIGHT AND BALANCE DATA

3.1. Scope. This chapter contains basic cargo compartment configuration and weight, locations, and moment data for associated required equipment.

3.2. General. Deviations to the basic configurations are authorized to meet specific mission requirements.

3.3. Legend of Configurations:

3.3.1. {A}{B} CP-1. This configuration offers 36 pallet positions and seats for 73 passengers in the troop compartment. All rollers will be up in this configuration.

3.3.2. {S} C-1. This configuration offers 36 pallet positions. All rollers will be up in this configuration.

3.3.3. {A}{B} CP-2. This configuration offers a clean cargo compartment floor for floor-loaded cargo and seats for 73 passengers in the troop compartment. All rollers will be down in this configuration.

3.3.4. {S} C-2. This configuration offers a clean; cargo compartment floor for floor loaded cargo. All rollers will be down in this configuration.

3.3.5. {A}{B} CP-3. This configuration offers a mixed combination of palletized cargo and floor loaded cargo in the cargo compartment and seats for 73 passengers in the troop compartment. Rollers will be positioned as the cargo dictates.

3.3.6. {S} C-3. This configuration offers a mixed combination of palletized cargo and floor loaded cargo. Rollers will be positioned as the cargo dictates.

3.3.7. {A}{B} P-1. This configuration offers the cargo compartment troop palletized seat kit (seats for 267 passengers), two comfort pallets, and four baggage pallets. A total of 73 passenger seats are provided in the troop compartment. If mission is to be conducted over water, the seats offered in the troop compartment will be reduced to 62. Eleven additional 25-member life rafts are positioned in the troop compartment. Rafts are placed on wood platforms, netted, and secured to the floor utilizing tiedown straps and floor fittings. Passenger seats are removed from seat rows 9 and 12. These seats may be stowed in the cargo compartment if required for subsequent use. This configuration provides limited ditching and ground emergency exits and should be evaluated carefully when considered for use.

3.3.8. {S} P-1. This configuration offers the cargo compartment troop palletized seat kit (seats for 267 passengers), two comfort pallets, and four baggage pallets. This configuration does not provide ditching exits or sufficient ground emergency exits and should be evaluated carefully when considered for use, and only for over land missions.

3.3.9. {A}{B} ADP-1. This configuration offers seats for 73 paratroops to be carried in the troop compartment and provisions for personnel airdrop.

3.3.10. {S} ADP-1. This configuration offers a partial palletized seat kit (8 seat pallets and 1 comfort pallet) for 78 paratroopers in the cargo compartment and provisions for personnel

airdrop. It does not provide ditching exits or sufficient ground emergency exits and should be evaluated carefully when considered for use, and only for over land missions.

3.3.11. **{A}{B}** ADC-1. This configuration offers provisions for heavy equipment airdrop.

3.3.12. **{S}** ADC-1. This configuration consists of a partial heavy equipment airdrop kit of ADS rollers/rails to accommodate oversized cargo loads. Opening the aft cargo doors in-flight is prohibited and is limited to airland missions only.

3.3.13. **{A}{B}** ADPC-1. This configuration provides for both airdrop of heavy equipment and personnel on the same mission.

3.4. Troop Life Preservers. In the event it is planned for paratroopers to be configured for a drop near or over large bodies of water, the service being airdropped will furnish required life preservers. However, the life preservers as indicated in the applicable configurations will still be provided as required to cover emergency ditching operations.

Figure 3.1. {A}{B} CP-1, CP-2, and CP-3 Standard Configuration (All Channel Missions)--Quantities.

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	-	-	12	42	0.3
Blankets, small	in seats	8	75	-	83	83	1.3
Pillows, large	620	6	-	-	6	12	0.1
Pillows, small	in seats	8	75	-	83	42	0.7
Hot cup	840/2075	1	1	-	2	6	-
Coffee pot	840/2075	1	1	-	2	4	-
{A} w/hot plate							
Passenger service kit	2080	-	1	-	1	10	0.2
Water container, 5-gal (full)	840/2080	1	2	-	3	150	2.4
Expendable supplies	825/2080	1	1	--	2	20	0.3
In-flight feeding supplies	840/2080	--	--	--	--	200	3.5
AF Forms 4127/4126	in seats	10	75	--	85	5	--
				TOTAL		574	8.8
Reference 6, DD Form 365-4 (Emergency Equipment)							
Protective clothing kit	825/2080	1	1	--	2	70	1.0
Life vest LPU-6/P	2080	--	7	--	7	28	0.6
Life vest MB-1	2080	--	2	--	2	8	0.2
Life vest A/C	490/1725	20	75	--	95	143	2.1
				TOTAL		249	3.9

Figure 3.1. {A}{B} CP-1, CP-2, and CP-3 Standard Configuration (All Channel Missions)—Quantities (continued).

Reference 7, DD Form 365-4 (Extra Equipment)							
Shoring kit plywood	443	--	--	1	1	28	0.1
					TOTAL		28

Figure 3.2. {S} C-1, C-2, and C-3 Standard Configuration (All Channel Missions)--Quantities.

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	--	---	12	42	0.3
Blankets, small	In seats	8	--	--	8	8	--
Pillows, large	620	6	--	--	6	12	0.1
Pillows, small	In seats	8	--	--	8	4	--
Hot cup	840	1	--	--	1	3	--
Coffee pot w/hot plate	840	1	--	--	1	2	--
Passenger service kit	840	1	--	--	1	10	--
Water container 5-gal (full)	840	1	--	--	1	50	--
Expendable supplies	825	1	--	--	1	10	--
In-flight feeding supplies	840	--	--	--	--	22	--
AF Form 4127/4126	In seats	10	--	--	10	--	--
				TOTAL		163	0.4
Reference 6, DD Form 365-4 (Emergency Equipment)							
Protective clothing kit	825	2	--	--	2	70	0.5
Life Vest MB-1	825	2	--	--	2	8	0.2
Life vest A/C	490	20	--	--	20	30	0.1
				TOTAL		108	0.8
Reference 7, DD Form 365-4 (Extra Equipment)							
Shoring kit, plywood	443	--	--	1	1	28	0.1
				TOTAL		28	0.1

Figure 3.3. {A}{B} P-1 Maximum Personnel Configuration (Troop Palletized Seat Kit)--Quantities.

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	--	--	12	42	0.3
Blankets, small	in seats	8	75	270	353	353	4.9
Pillows, large	620	6	--	--	6	12	0.1
Pillows, small	in seats	8	75	270	353	177	2.5
Hot cup	840/2075	1	1	--	2	6	--
Coffee pot	840/2075	1	1	--	2	4	--
{A} w/hot plate							
Passenger service kit	2080	--	1	--	1	10	0.2
Water container, 5-gal (full)	840/2080	1	2	2	5	250	3.0
Expendable supplies	596/692	--	--	--	--	--	--
	825/2075	--	--	--	--	75	0.6
In-flight feeding supplies	596/692	--	--	--	--	--	--
	840/2080	--	--	--	--	500	4.4
AF Form 4127/4126	in seats	10	75	--	85	5	--
				TOTAL		1,434	16.0
Reference 6, DD Form 365-4 (Emergency Equipment)							
Life vest LPU-6/P	2080	--	7	--	7	28	0.6
Life vest MB-1	2080	--	2	--	2	8	0.2
*Life raft 25-member	stowed on platform in TP Comp 1711/1831	--	11	--	11	1,998	35.1
Protective clothing kit	825/2080	1	1	--	2	70	1.0
Escape slides	1864	--	--	2	2	160	3.0
First aid kits, 2 each	on each seat pallet	--	--	54	54	108	1.4
Life vest A/C	dist	20	75	270	365	547	7.5
				TOTAL		2919	48.8
***In addition to Table 2.1 requirements.**							
Reference 7, DD Form 365-4 (Extra Equipment)							
Baggage pallet nets	443/596/696	--	--	4	4	1,420	7.7
Comfort pallet	596/736	--	--	2	2	9,394	62.4
Megaphone, handheld, battery operated	736	--	--	1	1	4	--
Seat pallet	dist	--	--	27	27	19,089	257.7
Filler pallets, panels, covers	dist	--	--	11	11	855	5.6
Escape pallet	1846	--	--	2	2	606	11.2
Advisory light	1003/1251/	--	--	--	--	--	--
	1452/1723/	--	--	--	--	--	--
	1923/2084	--	--	6	6	12	0.2
Shoring kit, plywood	443	--	--	1	1	28	0.1
				TOTAL		31,408	344.9

Figure 3.4. {S} P-1 Maximum Personnel Configuration (Troop Palletized Seat Kit)--Quantities.

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	--	--	12	42	0.3
Blankets, small	in seats	8	--	270	278	278	1.7
Pillows, large	620	6	--	--	6	12	0.1
Pillows, small	in seats	8	--	270	278	139	1.7
Hot cup	840	1	--	--	1	3	--
Coffee pot w/hot plate	840	1	--	--	1	2	--
Passenger service kit	766	--	--	1	1	10	--
Water container, 5-gal (full)	840/770	1	--	4	5	250	1.9
Expendable supplies	596/692/825	--	--	--	--	56	0.3
In-flight feeding supplies	596/692/	--	--	--	--	--	--
	840	--	--	--	--	450	3.0
AF Form 4127/4126	in seats	10	--	--	10	--	--
				TOTAL		1,242	9.0
Reference 6, DD Form 365-4 (Emergency Equipment)							
Protective clothing kit	825/760	1	--	1	2	70	0.4
Escape slides	1864	--	--	2	2	160	3.0
First aid kits, 2 each	on each pallet	--	--	54	54	108	1.4
Life vest MB-1	825	2	--	--	2	8	0.2
Life vest A/C	dist	20	--	--	20	30	0.7
				TOTAL		376	5.7
Reference 7, DD Form 365-4 (Extra Equipment)							
Baggage pallet, nets	443/596/696	--	--	4	4	1,420	7.7
Comfort pallet	596/736	--	--	2	2	9,394	62.4
Megaphone, handheld battery operated	736	--	--	1	1	4	--
Seat pallet	dist	--	--	27	27	19,089	257.7
Filler pallets, panels covers	dist	--	--	11	11	855	5.6
Escape pallet	1846	--	--	2	2	606	11.2
Advisory light	1003/1251/	--	--	--	--	--	--
	1452/1723/	--	--	--	--	--	--
	1923/2084	--	--	6	6	12	0.2
Shoring kit, plywood	443	--	--	1	1	28	0.1
				TOTAL		31,408	344.9

Figure 3.5. {A}{B} ADP-1 AD Configuration (Personnel Only)--Quantities.

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	--	--	12	42	0.3
Blankets, small	Troop comp closet	8	75	--	83	83	1.3
Pillows, large	620	6	--	--	6	12	0.1
Pillows, small	Troop comp closet	8	75	--	83	42	0.7
Hot cup	840/2075	1	1	--	2	6	--
Coffee pot	840/2075	1	1	--	2	4	--
{A} w/hot plate		--	--	--	--	--	--
Passenger service kit	2080	--	1	--	1	10	0.2
Water container,5-gal (full)	840/2080	1	2	--	3	150	2.4
Expendable supplies	825/2080	--	--	--	--	20	0.3
In-flight feeding supplies	840/2080	--	--	--	--	200	3.5
AF Form 4127/4126	in seats	10	75	--	85	5	--
				TOTAL		574	8.8
Reference 6, DD Form 365-4 (Emergency Equipment)							
Life vest LPU-2/P	dist	--	--	5	5	20	0.1
Life vest MB-1	2080	--	2	--	2	8	0.2
Life vest A/C	490/1725	20	75	--	95	143	2.1
Protective clothing kit	825/2080	1	1	--	2	70	1.0
Parachutes (back)	dist	--	--	5	5	140	0.7
				TOTAL		381	4.1
Reference 7, DD Form 365-4 (Extra Equipment)							
Anchor cable support assembly	dist	--	--	2	2	102	1.6
Restraint harness, aircrew, in-flight	557	2	--	--	2	17	0.1
Retriever winch platform assembly	1342	--	--	2	2	162	2.2
Air deflector assembly	1824	--	--	2	2	190	3.5
Retriever bar	1864	--	--	2	2	12	0.2
Jump platform	1864	--	--	2	2	53	1.0
Fairing assembly	1844	--	--	2	2	10	0.2
Shoring kit, plywood	443	--	--	1	1	28	0.1
					TOTAL	574	8.9

Figure 3.6. {S} ADP-1 AD Configuration (Personnel Only)--Quantities.

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	--	--	12	42	0.3
Blankets, small	In seats	8	--	80	88	88	0.6
Pillows, large	620	6	--	--	6	12	0.1
Pillows, small	In seats	8	--	80	88	44	0.3
Hot cup	840	1	--	--	1	3	--
Coffee pot w/hot plate	840	1	--	--	1	2	--
Passenger service kit	600	--	--	1	1	10	--
Water container, 5-gal (full)	840/596	1	--	2	3	150	1.2
Expendable supplies	596/825	--	--	--	--	20	0.1
In-flight feeding supplies	596/840	--	--	--	--	200	1.1
AF Form 4126/4127	In seats	10	--	--	10	--	--
				TOTAL		571	3.7
Reference 6, DD Form 365-4 (Emergency Equipment)							
Life vest LPU-2/P	dist	--	--	5	5	20	0.1
Life vest MB-1	825	2	--	--	2	8	0.2
Protective clothing kit	825/600	1	--	1	2	70	0.4
Escape slides	1864	--	--	2	2	160	3.0
First aid kits	2 each on each seat pallet	--	--	16	16	32	0.2
Parachutes (back)	dist	--	--	5	5	140	1.7
Life vest A/C	dist	20	--	90	110	165	1.2
				TOTAL		595	6.8
Reference 7, DD Form 365-4 (Extra Equipment)							
Restraint harness, aircrew, in-flight	557	2	--	--	2	17	0.1
Comfort pallet	596	--	--	1	1	4,697	27.9
Megaphone, handheld battery operated	736	--	--	1	1	4	--
Seat pallet	dist	--	--	8	8	5,928	45.6
Chemical oxygen generator	dist	--	--	5	5	24	0.1
Filler pallets, panels, covers	dist	--	--	4	4	573	3.8
Escape pallet	1846	--	--	2	2	606	11.2
Advisory light	1003/1251/ 1452	--	--	3	3	6	--
Anchor cable/support assembly	dist	--	--	2	2	102	1.6
Retriever winch platform assembly	1342	--	--	2	2	162	2.2
Air deflector assembly	1824	--	--	2	2	190	3.5
Retriever bar	1864	--	--	2	2	12	0.2
Jump platform	1864	--	--	2	2	53	1.0
Fairing assembly	1844	--	--	2	2	10	0.2
Shoring kit, plywood	443	--	--	1	1	28	0.1
				TOTAL		12,412	97.5

Figure 3.7. {A}{B} ADC-1 AD Configuration (Equipment Only)--Quantities.

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	--	--	12	42	0.3
Blankets, small	in seats	8	75	--	83	83	1.3
Pillows, large	620	6	--	--	6	12	0.1
Pillows, small	in seats	8	75	--	83	42	0.7
Hot cup	840/2075	1	1	--	2	6	--
Coffee pot,	840/2075	1	1	--	2	4	--
{A} w/hot plate							
Passenger service kit	2080	--	1	--	1	10	0.2
Water container,5-gal (full)	840/2080	1	2	--	3	150	2.4
Expendable supplies	825/2080	--	--	--	--	20	0.3
In-flight feeding supplies	840/2080	--	--	--	--	200	3.5
AF Form 4127/4126	in seats	10	75	--	85	5	--
				TOTAL		574	8.8
Reference 6, DD Form 365-4 (Emergency Equipment)							
Life vest LPU-2/P	dist	--	--	5	5	20	0.1
Life vest MB-1	2080	--	2	--	2	8	0.2
Protective clothing kits	825/2080	1	1	--	2	70	1.0
Parachutes (back)	dist	--	--	5	5	140	1.7
Life vest A/C	490/1725	20	75	--	95	143	2.1
				TOTAL		381	5.1
Reference 7, DD Form 365-4 (Extra Equipment)							
Restraint harness, aircrew, in-flight	557	2	--	--	2	17	0.1
Roller conveyor assembly	dist	--	--	72	72	927	12.9
Restraint rail assembly	dist	--	--	26	26	1,519	18.9
Guide rail assembly	dist	--	--	8	8	146	3.5
Spacer assembly	dist	--	--	12	12	70	0.3
Target assembly	2183	--	--	1	1	8	0.2
Actuator assembly	2183	--	--	1	1	2	--
Release assembly	2183	--	--	1	1	58	1.3
Link assembly	2114	--	--	2	2	100	2.1
Shoring kit, plywood	443	--	--	1	1	28	0.1
				TOTAL		2,875	39.4

NOTE: Subtract the following weights from Ref 7 total weight to obtain the weight and moment for each restraint rail and roller conveyor assembly configuration.

3/4 configuration	722 lbs	4.7 mom
1/2 configuration	1192 lbs	9.6 mom
1/4 configuration	1732 lbs	17.0 mom

* These figures have the FWD Ramp Guide Rails and Spacer assemblies removed from the total weight.

Figure 3.8. {S} ADC-1 AD Configuration (Equipment Only)--Quantities.

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	--	--	12	42	0.3
Blankets, small	in seats	8	--	--	8	8	--
Pillows, large	620	6	--	--	6	12	0.1
Pillows, small	in seats	8	--	--	8	4	--
Hot cup	840	1	--	--	1	3	--
Coffee pot w/hot plate	840	1	--	--	1	2	--
Passenger service kit	840	1	--	--	1	10	--
Water container, 5-gal (full)	840	1	--	--	1	50	--
Expendable supplies	825	1	--	--	1	10	--
In-flight feeding supplies	840	--	--	--	--	22	--
AF Form 4127/4126	in seats	10	--	--	10	--	--
				TOTAL		163	0.4
Reference 6, DD Form 365-4 (Emergency Equipment)							
Protective clothing kit	825	2	--	--	2	70	0.5
Life vest MB-1	825	2	--	--	2	8	0.2
Life vest A/C	490	20	--	--	20	30	0.1
				TOTAL		108	0.8
Reference 7, DD Form 365-4 (Extra Equipment)							
Roller conveyor assembly	dist	--	--	72	72	927	12.9
Restraint rail assembly	dist	--	--	26	26	1,519	18.9
Guide rail assembly	dist	--	--	8	8	146	3.5
Spacer assembly	dist	--	--	12	12	70	0.3
Shoring kit, plywood	443	--	--	1	1	28	0.1
				TOTAL		2,690	35.7

Figure 3.9. {A}{B} ADPC-1 Dual AD Configuration (Equipment and Personnel)--Quantities

EQUIPMENT	STATIONS	FLT STA	TP COMP	CGO COMP	TOTALS	WEIGHT	MOMENT
Reference 5, DD Form 365-4 (Steward's Equipment)							
Blankets, large	620	12	--	--	12	42	0.3
Blankets, small	In seats	8	75	--	83	83	1.3
Pillows, large	620	6	--	--	6	12	0.1
Pillows, small	In seats	8	75	--	83	42	0.7
Hot cup	840/2075	1	1	--	2	6	--
Coffee pot	840/2075	1	1	--	2	4	--
{A} w/hot plate		--	--	--	--	--	--
Passenger service kit	2080	--	1	--	1	10	0.2
Water container, 5-gal (full)	840/2080	1	2	--	3	150	2.4
Expendable supplies	825/2080	--	--	--	--	20	0.3
In-flight feeding supplies	840/2080	--	--	--	--	200	3.5
AF Form 4127/4126	in seats	10	75	--	85	5	--
				TOTAL		574	8.8
Reference 6, DD Form 365-4 (Emergency Equipment)							
Life vest A/C	490/1725	20	75	--	95	143	2.1
Life vest LPU-2/P	dist	--	--	5	5	20	0.1
Life vest MB-1	2080	--	2	--	2	8	0.2
Protective clothing kit	825/2080	1	1	--	2	70	1.0
Parachutes (back)	dist	--	--	5	5	140	1.7
				TOTAL		381	5.1
Reference 7, DD Form 365-4 (Extra Equipment)							
Restraint harness, aircrew, in-flight	557	2	--	--	2	17	0.1
Fence assembly	dist	--	--	--	--	1,478	19.0
Anchor cable support assembly	dist	--	--	2	2	102	1.6
Retriever winch/platform	1342	--	--	2	2	162	2.2
Air deflector assembly	1824	--	--	2	2	190	3.5
Fairing assembly	1844	--	--	2	2	10	0.2
Retriever bar	1864	--	--	2	2	12	0.2
Jump platform	1864	--	--	2	2	53	1.0
Roller conveyor assembly	dist	--	--	72	72	927	12.9
Restraint rail assembly	dist	--	--	26	26	1,519	18.9
Guide rail assembly	dist	--	--	8	8	146	3.5
Spacer assembly	dist	--	--	12	12	70	0.3
Target assembly	2183	--	--	1	1	8	0.2
Actuator assembly	2183	--	--	1	1	2	--
Release assembly	2183	--	--	1	1	58	1.3
Link assembly	2114	--	--	2	2	100	2.1
Shoring kit, plywood	443	--	--	1	1	28	0.1
				TOTAL		4882	67.1

NOTE: Restraint Rails, Roller Conveyors, and Fence Assemblies can be used in three configurations. Subtract the following weights from the Ref 7 total weight to obtain the weight and moment of each configuration.
3/4 configuration 952 lbs 7.6 mom
1/2 configuration 1883 lbs 16.2 mom
1/4 configuration 2769 lbs 18.3 mom
* These figures have the FWD Ramp Guide Rails and Spacer Assemblies removed from the total weight.

Chapter 4

LOAD PLANNING

4.1. Scope. This chapter contains information to assist personnel in load planning.

4.2. General. Table 4.1 contains standard weight information. The following factors must be considered during load planning:

4.2.1. The cargo load must be planned so that the center of gravity of the loaded airplane shall be within specified forward and aft limits. Consideration must also be given to offload sequence, airplane limitations, and emergency jettisoning. For fuel efficiency, plan for a zero fuel center of gravity of approximately 33 percent of MAC.

4.2.2. Pallets loaded in pallet positions 1, 2, 35, and 36 (forward and aft ramps) shall have a 14-inch access, which shall extend from the outboard edge of the pallet to the vertical stacking line of the cargo (TO 1C-5A-9).

4.2.3. No lateral overhang permitted for pallets loaded into the aircraft rail system. Ensure the maximum width of 104 inches of usable area of the pallet is not exceeded (TO 1C-5A-9).

4.2.4. The maximum height of cargo for pallet positions 35 and 36 (aft ramp) shall not exceed 70 inches measured on the aft side of the pallet (TO 1C-5A-9).

4.2.5. The weight limit on the forward or aft ramp is limited to 7,500 pounds-per-pallet position (TO 1C-5A-9).

4.2.6. **{S}** AFT cargo door configuration prohibits left or right straight in loading of palletized cargo into the logistics rail system (TO 1C-5A-9-1).

4.2.7. When 20 or more passengers or troops are planned, a pallet position shall be left open to accommodate the palletized baggage.

4.2.8. Do not place cargo in a position that shall restrict the use of the flight deck or troop compartment ladders.

4.3. Planning for the Loading and Placement of Hazardous Cargo. All classes of hazardous materials listed as acceptable for air transportation may be transported on the C-5 airplane. Hazardous cargo that is considered jettisonable shall not be positioned forward of non-jettisonable cargo, i.e. vehicles, helicopters, pallet trains, etc., except when weight and location will permit jettisoning by hand. Hazardous jettisonable cargo must be readily accessible and positioned for emergency jettison.

4.4. Miscellaneous Data. Table 4.1 will aid in configuration planning and balance.

4.5. {A}{B} Personnel Limitation with One Lavatory Inoperative. The Personnel Limitation Chart (**Figure 4.1**.) reflects the number of passengers or troops that one troop compartment lavatory can accommodate and must be considered when determining the number of personnel that can be airlifted with one operative lavatory.

Table 4.1. Standard Weight Information.

	Pounds
Restraint harness, aircrew, in-flight	8.3
Blankets, large	3.5
Blankets, small	1
Buffet/lavatory unit (unserviced)	3,106
Buffet/lavatory unit (serviced)	4,697
Chain, MB-1	7
Chain, MB-2	20
Coffee pot	2
Crew (each)	200
Crew baggage (each)	50
Device, MB-1	3.5
Device, MB-2	6
Duffle bag	100
Emergency Passenger Oxygen System (EPOS)	2
Emergency escape breathing device (EEBD) or Protective breathing equipment (PBE) w/storage case	5
Escape, slide/assembly	
{A}{B} No. 3R and 3L exit	71.5 each
{A}{B} No. 4 exit	71
No. 5 exit	70
{A}{B} No. 6 exit	71
No. 7R and 7L exit	80 each
Fire extinguisher, portable (1 qt)	9
Fire extinguisher, portable (1 gal)	68
Hot beverage unit (galley)	22
Hot cup	3
Life raft, 25-member, No. 2 exit	151
{A}{B} No. 3R, 4, and 6 exits	136
Life vest LPU 2/P or LPU 10/P (aircrew)	4
Life vest LPU 5/P (adult)	4
Life vest A/C (adult/child)	1.5
Life vest MB-1 (casualty)	4
Life vest MD-1 (child)	3
Life vest LPU-6/P (infant cot)	4
Nets, pallet	65
Oil, engine, MIL-L-7808 (one case)	45
Oil, hydraulic, MIL-H-83282 (one case)	42
Oxygen bottle, portable	6
Oxygen mask (all quick-don series)	1

Table 4.1. Standard Weight Information (continued).

Oven, galley	45
Pallet (HCU-6/E)	290
Parachute, back (aircrew)	28
Parachutes (paratroop)	50
Paratroop w/ruck sack, web gear, and weapon (combat)	350
Paratroop w/ruck sack, web gear, and weapon (training)	300
Paratroop w/o ruck sack and weapon (Hollywood)	220
Passenger service kit	10
Passengers (each)	175
Passenger baggage (each)	66
Pillows, small	0.5
Protective clothing kit	35
{A} Refrigerator, relief crew compartment	125
{B} Refrigerator, relief crew and troop compartment	227
{A} Refrigerator, troop compartment	142
Ruck sack (training)	40
Ruck sack (combat)	80
Seat pallet (troop palletized seat kit) each	707
Sheets	5
Shoring kit, plywood	28
Shoring	
Plywood 1/2" x 4' x 8'	43
3/4" x 4' x 8'	64
Planking 2" x 12" x 12'	72
Smoke mask	2
Straps, CGU 1/B	4
Troops (each) w/web gear and weapon	210
Troops, ground w/ruck sack, web gear, and weapon (combat)	300
Troops, ground w/ruck sack, web gear and weapon (training)	250
Troops, ground w/ruck sack, duffle bag, web gear, and weapon (combat)	400
Troops, ground w/ruck sack, duffle bag, web gear, and weapon (training)	350
Water container, 5-gal (full)	50
Wheel chock (20-inch)	14
Winch (heavy duty portable)	792
Winch (C-5), electric	300
Winch (C-5), hydraulic	329

Table 4.1. Standard Weight Information (continued).

Aft Flight Deck Galley Equipment. The following equipment should be with the galley:

	20	serving trays
	1	refrigerator
	1	oven w/rack
	1	hot beverage unit
	1	hot cup
{A}{S}	1	hot plate
	1	sponge
	1	food rack handle
	1	fiberglass refuse container
{A}{S}	2	7-gal water tanks
	1	paper cup dispenser
	1	paper towel dispenser
	1	swing-away can opener

Lavatory: Should contain 1 each of the following: roll toilet paper, bar soap, portable oxygen bottle with oxygen mask attached, and pack of towels.

Compartment Above the Crew Baggage Compartment #3. The following should be opposite the crew galley: 1 can aerosol air freshener 3 cans of insecticide.

{A}{B} Troop Compartment Galley Equipment. The following equipment should be with the galley:

	2	refrigerators or freezers
	2	ovens w/racks
	1	hot beverage unit
	1	hot cup
	75	serving trays
	1	plastic refuse container
	1	swing-away can opener
{A}	1	50-gal water supply system (1 8-gal accumulator and 1 42-gal reservoir)
	1	paper cup dispenser
	1	paper towel dispenser
	1	sponge
	1	food rack handle

{A}{B} Troop Compartment Lavatories: Should contain 1 each of the following; roll toilet paper, bar soap, portable oxygen bottle with oxygen mask attached, and pack of towels.

Cargo Compartment Troop Palletized Seat Kit Buffet and Lavatory Equipment: The following equipment should be with each buffet:

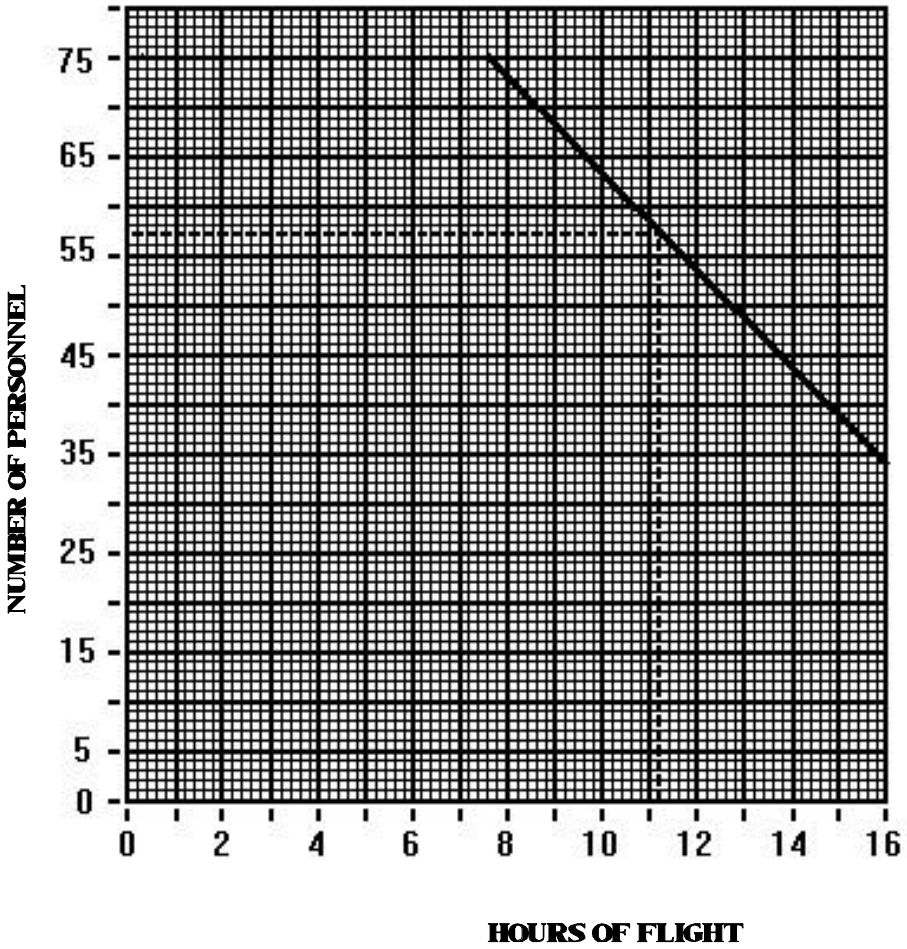
	150	serving trays
	2	refrigerators
	3	ovens
	12	oven racks
	1	food rack handle
	1	sponge
	1	hot plate
	2	refuse containers
	1	paper cup dispenser
	2	hot beverage units
	1	hot cup

ATGL: Should contain 1 each of the following: roll toilet paper, bar soap, portable oxygen bottle with oxygen mask attached, pack of towels, paper towel dispenser, paper cup dispenser, and refuse container.

Figure4.1. {A}{B} C-5 Personnel Limitation Chart (when one of the two troop compartment lavatory compartments is inoperative). The chart reflects the amount of time that may be flown depending on the total number of personnel to be transported.

NOTE:

The operative lavatory compartment must be serviced at the station requiring maximum passenger airlift.



***EXAMPLE*:** How many passengers may be airlifted on a 11.2-hour flight? ***SOLUTION*:** Enter the graph on the horizontal scale of 11.2 hours. Project a line vertically until it intersects the \sloping line and project a line horizontally to the left. At this point is the maximum figure of 57.

NOTES:

1. Two loadmasters must be subtracted from total number determined by chart.
2. Consideration should be given to infants and small children when figuring total personnel aboard.

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Attachment 1

INSTRUCTIONS DD FORM 365-4 (WEIGHT AND BALANCE CLEARANCE FORM F)

A1.1. DD Form 365-4 Heading. Enter date, airplane type, departure station, home station of airplane, mission number, serial number, destination station (use station nomenclature, not symbols), and pilot's rank and last name.

Al.2. Limitations. Enter the appropriate weight and center of gravity (CG) limits for the planned mission using the following criteria: The maximum gross weight (GW), zero fuel weight (ZFW), and CG limits specified in the flight manual and loading data manual shall not be exceeded.

Al.2.1. Allowable Takeoff GW. This is normally the maximum takeoff GW of 769,000 pounds (840,000 pounds during emergency war plan (EWP). Allowable takeoff GW may be further restricted by critical field length, obstacle clearance, rate of climb, or weight bearing capacity. Check with the flight engineer.

Al.2.2. Allowable Landing GW. This is a normal landing weight of 635,850 pounds (769,000 during EWP). For conditions other than EWP, if unique mission requirements dictate a weight above 635,850 pounds, consult AFI 11-2C-5V3.

Al.2.3. Allowable ZFW. This is normally 665,000 pounds unless nonstandard fuel sequence procedures are used, Check with the flight engineer.

Al.3. Reference 1. Enter basic weight and moment from certified copy of the DD Form 365-3 (Chart C) in the airplane weight and balance handbook.

Al.4. Reference 2. Leave blank.

Al.5. Reference 3. Enter crew number and location. @ TO 1C-5A-5-2, table 2-1, or enter by compartment centroid. (Use fuselage station (FS) 440 for "A" compartment; FS 730 for "B" compartment; FS 917 for "C" compartment; and FS 2031 for "E" compartment.)

Al.6. Reference 4. Enter crew baggage at 50 pounds each using FS 500.

Al.7. Reference 5, 6 and 7 (see **Chapter 3**). Enter weight and moment. Also, indicate configuration used.

Al.8. Reference 8. Enter liquid nitrogen weight and moment.

Al.9. Reference 9. The total of references 1 through 8.

Al.10. Reference 10. Enter takeoff fuel. Ramp fuel (minus 3,000 pounds for taxi and takeoff roll) equals takeoff fuel. Fuel moments may be computed using the interpolation method or use 14 moments for each 1,000 pounds of fuel over the standard fuel figures in TO IC-5A-5-2.

Al.11. Reference 11. Leave blank.

Al.12. Reference 12. The total of references 9 and 10.

Al.13. Reference 13. Distribution of Allowable Load:

Al.13.1. Enter 463L pallets with cargo by pallet position or fuselage station.

A1.13.2. Enter vehicles, rolling stock, pallet trains with oversize cargo by CG location.

Al.13.3. Enter passengers or troops in the appropriate compartments, see TO IC-5A-5-2, tables 2-10 and 2-11, or enter by compartment centroid (Use FS 1675 for 'E" compartment.)

Al.14. Reference 14. Enter the ZFW, zero fuel moment, and zero fuel percent of MAC. If the ZFW CG falls outside the ZFW envelope (loading data manual), the cargo load preplan must be adjusted.

A1.15. Reference 15. Subtotals; enter totals from reference 13.

Al.16. Reference 16. Enter the total of references 12 and 15.

A1.17. Reference 17. Enter the takeoff CG in percent of MAC.

Al.18. Reference 18. Enter corrections (when applicable).

Al.19. Reference 19. Enter the total of references 16 and 18. If no corrections, leave blank.

Al.20. Reference 20. Enter the corrected CG in percent mean aerodynamic cord (MAC). If no corrections, leave blank.

Al.21. Reference 21. Enter ZFW and moment. (Adjust if corrections are made)

Al.22. Reference 22. Leave blank except for airdrop missions.

Al.23. Reference 23. Enter estimated landing fuel weight and moment. Check computerized flight plan or use 30,000 pounds for first hour of flight and 20,000 pounds per hour for remainder of flight.

Al.24. Reference 24. Enter the total of references 21 and 23. This weight should not exceed the allowable landing GW shown in the limitations block.

Al.25. **Reference 25.** Enter the estimated landing CG in percent of MAC.

Al.26. Remarks Block. Enter nonstandard fuel sequence information, if applicable, and the maneuver load limit (if less than 2.5's).

A.1.26.1. Nonstandard fuel sequencing will be used when maintenance problems preclude the use of certain fuel tanks. Nonstandard fuel procedures are essentially the same as standard fuel sequencing with the following exceptions:

Al.26.1.1. The flight engineer will inform or provide the loadmaster of the conditions requiring this configuration and the fuel weight distribution of individual tanks.

Al.26.1.2. Fuel weight moments will be computed using the standard sequence fuel moment tables in TO 1C-5A-5-2 and TO 1C-5A-5-2-1.

Al.26.1.3. Special zero fuel weight center of gravity (ZFWCG) restrictions are required when using nonstandard fuel sequencing. Enter ZFWCG limitation in the limitation block. (See TO 1C-5A-1, figure 5-7.).

Al.26.1.4. Weight limitation restriction. Depending on which tanks are empty, the takeoff and fuel allowable gross weight limitations will be restricted. The landing limitation will remain at 635,850 pounds. Comply with TO IC-5A-1, section V, Nonstandard Fuel Sequence Procedures.

Al.26.1.5. Use the remarks block to record the fuel breakdown of symmetrical tanks, weight and moments, i.e., 1 and 4 main tanks 47,000 pounds @ 758 moments.

NOTE:

When calculating moments for fuel, use 14 moments for each 1,000 pounds of fuel over the standard fuel figures contained in TO IC-5A-5-2.

Al.26.2. Maneuver load limitation apply.

Al.26.2.1. When ZFW does not exceed 590,000 pounds and takeoff GW does not exceed 769,000 pounds, no entry required.

Al.26.2.2. When ZFW is between 590,000 and 635,000 pounds or takeoff GW is greater than 769,000 pounds, enter "Maneuver load limit 2.25g."

Al.26.2.3. When ZFW is between 635,000 and 665,000 pounds, enter "maneuver load limit 2.0g."

Al.27. Load Adjuster Number Block. Leave blank.

Al.28. Signature Block. Entries must be legible.

Attachment 2

C-5 WEIGHT AND BALANCE INFORMATION SHEET AND HP 200 LX OPERATING INSTRUCTIONS

A2.1. Introduction. This manual provides information for using the C-5 Weight and Balance Information Sheet. The worksheet, titled 365-4-1A, is the culmination of an effort to simplify weight and balance computations for C-5 loadmasters, and may be used instead of manually completing the DD Form 365-4, Weight and Balance Clearance Form F. Each loadmaster is responsible for ensuring the data is accurate. If in doubt of the accuracy of the computations, loadmaster will cross check with reference sources such as the 1C-5A-5, and the AFI 11-2C-5, Volume 3, Addenda A. When electronically printed on the HP 82240B infrared (or compatible) printer, the printed weight and balance information sheet is acceptable in lieu of the Form F.

CAUTION

Do not disable protection for any protected worksheet cell. Worksheet may become corrupted or deleted if cells containing formulas become disable. If this happens, the accuracy of the information sheet is no longer assured. If the file is corrupted, seek alternate means of accomplishing weight and balance, such as manual completion of DD 365-4, or an uncorrupted worksheet.

CAUTION

Do not accomplish a cargo load-shift by using the Lotus 1-2-3 [R]ange [M]ove feature. To do so will cause cell errors that cannot be corrected unless you re-load the worksheet. To accomplish a load-shift, use the [R]ange [C]opy and [R]ange [E]rase features.

CAUTION

Do not copy or move the contents of a protected cell into an unprotected cell. To do so will add cell protection to the unprotected cell, rendering it unusable.

A2.2. Conventions. This is to standardize the description of keyboard operations. A name of a key will be in brackets. For example, the ENTER key will be described as [ENTER]. The exceptions to this rule are when a key name is not a letter or word, such as the cursor control keys. In this case, the actual function of the key will be in quotations within brackets. For example, the keys with orange arrows are the shift keys. They will be described as [“Shift”]. When keys are to be pressed in sequence, commas will separate the key names. For example [MENU], [R], [E]. When possible, the function of the key will be included. For example, [MENU], [R]ange, [E]rase. When keys are to be pressed simultaneously, the key names will be separated by the plus sign (+). For example [CTRL] + [“Left”].

A2.3. Password-Protecting The HP200LX. Each HP 200 LX computer must be password protected to avoid tampering with program. Use the following procedures to password protect the HP 200: Press [FILER], [MENU], [O]ptions, and [D]OS. The “C:\>” prompt should be visible on the Liquid Crystal Display (LCD). Type “password” and press [ENTER]. At the “Enter password:” prompt, type your password, and press [ENTER]. At the “Verify password:” prompt, type your password again, and press [ENTER]. The system should respond with “Password changed.” and display the “C:\>” prompt again. To activate the password; Type “password” followed by one of the following commands:

/A – This activates the "Auto Lock" feature. In this mode, whenever the palmtop is turned off manually or by itself automatically after timing out, the password needs to be entered to access any program. This is the recommended method for password protection.

/M – This activates the "Manual Lock" feature. In this mode, the password will be activated ONLY when you press and hold [ON] while pressing and releasing [ENTER]. Under this condition, enter the password to access any program.

/D – This deletes the current password.

Press [ENTER], and the palmtop should display "Password changed/deleted", and the "C:\>" prompt. Type "exit" and press [ENTER]. This should take you back to the Filer.

A2.4. Printing The Information Sheet On The HP 82240B Printer. Printing the Form F to the 82240B infrared printer is a two-step process. These instructions assume the "Setting up the HP200LX" has been completed according to the application's instruction.

A2.4.1. While Lotus 1-2-3 is running and the worksheet is loaded, press ["Shift"], [F3]. Select the macro titled "SEND FORM F", and press [ENTER]. The macro starts and sends the Form F to a file titled "F.PRN" in the C:_DAT subdirectory. The file will be in ASCII text format.

A2.4.2. Turn on the HP 82240B printer and align its' infrared interface with the HP200LX infrared interface. Press [&…], [O]. The HP 82240B printer should start printing within a few seconds. Printing takes approximately three minutes.

A2.5. Getting Started On The HP200LX. First, turn on the computer by pressing [ON]. Next, start Lotus 1-2-3 and load the worksheet by pressing [Fn], [F1]. If the HP200LX is not set up according to the instructions above, press [123]. Once the worksheet displays, press [MENU], [F]ile and [R]etrieve. Provided the worksheet file has been installed in the C:_DAT subdirectory, it should be displayed as one of the files available. If not, use the cursor keys to highlight the file titled "365-4-1A.WK1" and press [ENTER]. The "WAIT" prompt should appear in the upper right-hand corner of the screen. After approximately 20 seconds, the worksheet will be loaded. Although left-hand corner of the worksheet (called the HOME position) should be on the screen, it's possible to see any portion of the worksheet, as the cursor will be in whatever position it was when the file was last saved. To go to the HOME position, press [Fn], ["Left"]. On the top line of the screen, you will see "A1: PR ' WEIGHT AND BALANCE INFORMATION SHEET - TRANSPORT". The cursor will be on cell A1, which contains this title text.

A2.5.1. NAVIGATING AROUND THE WORKSHEET In all cases during this instruction, a cell address will be reference to enter, edit, or review your data. Locations will be given by column (letter) and/or row (number). Use either the cursor or paging control keys to go to that cell. As a shortcut, press [F5]. The worksheet will prompt you for the address of the cell. Type the cell address, and press [ENTER]. The worksheet will go directly to that cell address. Where applicable, the instructions also mention the Reference Numbers or other applicable areas of an actual Form F. This will help direct the user to the proper location on the DD Form 365-4 if it was to be completed by hand.

A2.5.2. ENTERING DATA. To enter information (text or numbers), move the cursor over the cell. Make entries only to cells that are unprotected. These cells have the letter **"U"** next to the cell address at the upper left corner of the screen. A protected cell has the letters **"PR**" next to

the cell address. For empty cells, make a direct entry by typing the information and pressing [ENTER]. For cells that already contain information, either edit or correct the data. To edit, press [F2] and change the entry. When finished, press [ENTER]. To correct the entry, simply type the new information and press [ENTER].

NOTE:

The edited or corrected entry will not actually change until pressing [ENTER] or cursor out of the cell.

A2.5.3. HEADER INFORMATION. The first information to enter is in the header blocks. Six cells, on rows 4 and 5, cells B, D and E are unprotected for this purpose. The information needed is the same as the header information of the Form F, and is self-explanatory.

A2.6. Ref. 1: Basic Aircraft. Go to cell D8, and enter the six-digit aircraft serial number as it appears on the Form F book, but without using the minus (-) sign. For example, for aircraft 86-0026, enter the number "860026". If "86-0026" is entered, Lotus will subtract 26 from 86. The computer will display 60 as the serial #, and the Weight and Moments will display zeros. If the number is entered correctly, the Serial # will be 860026, the Weight will be 370,385 (or most recent weight), and the Moments will be 5,176 (or most recent moments).

NOTE:

If the weight and moment doesn't match the most recent Chart C, change them by Pressing ["SHIFT"], [F3] to access the automatic macros. Select the macro titled "GOTO ACFT INFO" and press [ENTER]. The cursor will go to the table at the bottom of the worksheet that contains basic weight and moment information for all the C-5s in the inventory. Cursor down to the aircraft's serial number. Cursor to the right (to column B) and input the new basic weight, then right again (to column C) to input the new basic moment. Cursor right again to column D to input the new weighing date. Press [Fn], ["LEFT"] to return to the HOME position. The new basic weight and moment should now appear in E8 and F8.

CAUTION

Always double-check the worksheet's basic aircraft information against the Chart "C" in the Form F book. Failure to comply could result in using outdated or incorrect aircraft basic weight and moments.

NOTE:

The worksheet has a table containing the serial numbers of all the C-5s in the inventory, and the most recent Basic Weight and Moment for each aircraft. You can easily update this information.

A2.7. Reference 2. Not Used.

A2.8. Reference 3: TOTAL CREW No.

Go to cell D10, and start entering the number of crew in each compartment. Rows 10 through 14 are for entering crew distribution information. Cell D10 is for the Flight Deck, D11 is for the Aft Flight Deck, D12 is for the Courier Compartment, D13 is for the Troop LM Seats, and D14 is for inputting ACM information. As you enter information in these cells, you should notice the total crew information on row 9 changing. Cell C14 is for inputting the centroid of the compartment where you will be seating the ACM's.

CAUTION

For cell C14, use only 917 or 1675 as the centroid of the courier compartment or troop compartment, respectively. If you use any other number, Lotus will not be able to warn you if you have exceeded the capacity of the compartment.

NOTE:

Column E, cells 10 through 14 are for your information. These cells contain the letter designator of the compartment, its' maximum capacity, and its' centroid. If a number that exceeds the compartment capacity is entered, the applicable cells will change to display "*More than X *", with X being the capacity exceeded. Even if the compartment capacity is exceeded, the worksheet will still compute total crew weight and moments.

A2.9. Ref. 4: Crew Bags @ FS.Go to cell D15. This cell is for inputting the centroid of the crew bags, with line 15 reserved for crew baggage information. For all line missions, fuselage station 500 is normally entered, however, enter 0 for local missions or missions without crew baggage. This will compute the weight and moment of the crew bags at fuselage station 0. When the crew is carrying deployment bags, go to cell G15 and change the default number from 50 to the average baggage weight for each individual crewmember. Lotus will use that weight to compute the total baggage weight and moments for the entire crew.

A2.10. Ref. 5, 6, 7: Steward's, Emergency, and Extra Equipment. Go to cell D17 and either edit or input the equipment configuration. Column E, rows 16 through 18 are for inputting the weight for a given configuration. Column F, rows 16 through 18 are for inputting the moments for that configuration.

NOTE:

The worksheet contains macros for automatically inputting these values. See the instructions on Macros later in these instructions.

A2.11. Ref. 8: F.S.S. (LIN) 0-1500. Go to cell E19 and input the weight of liquid nitrogen (LIN) for the Fire Suppression System. The allowable values are zero to 1,500. Lotus computes the moments.

A2.12. Ref. 9: Operating Weight. Cells E20 and F20 display the sum of the information inputted in the previous cells. Lotus computes these values.

A2.13. Ref. 10: Total T.O. Fuel Weight. Go to cell E21 to input the weight of **standard sequence** takeoff fuel. Lotus will automatically compute the moments from this. Cells E23 and F23 will display the total takeoff fuel weight and moments, respectively.

WARNING

In the event of a **non-standard sequence** takeoff fuel, do not enter that information here. See the instructions on non-standard sequence fuel procedures.

A2.14. Ref. 11. Not Used.

A2.15. Ref. 12. Total Aircraft Weight.

Cells E24 and F24 display the sum of the information for total aircraft weight. Lotus automatically computes these values.

NOTE:

Row 25 monitors the total takeoff fuel weight. If the total takeoff fuel exceeds 332,500 pounds (the maximum capacity of all tanks), the message "OK" will change to "***Too Much Fuel - Reenter ***".

A2.16. Ref. 13: Distribution Of Allowable Load (Payload).

A2.16.1. Entering Cargo Information. Columns A, B, C and D, rows 28 through 62 are unprotected for entering cargo information. Columns E, F, and G are protected. Columns A and D are for entering the left and right side fuselage station of cargo, and display the centroid of each pallet position by default. These values can be changed at any time, or enter a different centroid on the lines between the default values. Columns B and C are for entering left and right side weights, respectively. After entering weight values in column B and C, Lotus computes total weight and moments at that centroid (even side-by-side) and displays that information in Columns E and F. Column G is for your information, and displays the pallet positions for the cargo compartment. Row 64 displays the computed subtotal for cargo by left side weight (cell B64), right side weight (cell C64) and total cargo weight and moment (cells E64 and F64, respectively).

NOTE:

If cargo weighs more than 99,999 pounds, use column C to input the weight. If column B is used, the information sheet will display "*****" when it is printed out. Even so, the accuracy will not be affected. Do not enter passenger or baggage information here. This can be accomplished in the passenger section below.

A2.17. Entering Passenger/Troop Information. This section allows the input of the number of passengers and/or troops in either the courier or troop compartments, and allows the use of two different weights in the event of a mixed load of passengers with troops. Rows 66 through 69 are for personnel in the courier compartment. Go to cell B67 or B68 to input the number of personnel. Cells C67 and C68 are for inputting the weight per person. The default values may be change from 175 pounds (for passengers) and 210 pounds (for troops) to whatever individual weight required. Lotus computes the weight and moments and displays this information in Columns E and F on the same row. Row 69 monitors the sum of all crewmembers, ACM's, passengers and troops in the courier compartment. Rows 70 through 73 are essentially the same, except they're for entering information for personnel in the troop compartment. Input passenger baggage centroid and weight on row 75. Columns A and D are for inputting the left and right side centroid, and columns B and C are for inputting the left and right side weight. Lotus computes the total weight and moments (if applicable) and displays that information in cells E75 and F75, respectively.

NOTE:

If a capacity of a compartment is exceeded, the message "OK" will change to

"** More than XX People in [compartment] **"

This message links to the TOTAL CREW No. area at the top of the worksheet.

A2.18. Ref. 15: Cargo/Pax/Bags Total. Lotus computes the sum of all weight and moment information provided in Ref. 13 and displays it in cells E77 and F77.

NOTE:

Rows 78 through 81 monitor various conditions in Ref. 13, and provide a warning in the event the condition occurs. Rows 78 and 79 are to ensure a cargo weight is not inputted without a centroid in the adjacent cell, which would result in a warning message,"*** Cargo Weight With NO Centroid - XXXX Side ***" Rows 80 and 81 monitor the cells that could represent a pallet in positions #33 and #34. If the weight input restricts the vertical CG of the pallet, the message will change to:

"*** Pallet #XX Vertical C.G. Limited to XX inches ***".

If the weight input in these cells does NOT represent a pallet (i.e. rolling stock), you may disregard this message.

A2.19. Center Of Gravity Section.

A2.19.1. Ref. 14: ZERO FUEL CONDITION. Lotus computes the sum of all weight and moment information from Refs 1 through 15, and displays it in cells E83 and F83, respectively. Lotus also computes the ZERO FUEL CG IN % MAC to the nearest tenth of a percent and displays it in cell E84.

NOTE:

Rows 85 through 89 monitor the zero fuel condition for various situations, and display a warning if any of these conditions occur. Row 85 will provide a warning if the zero fuel weight is exceeded. Row 86 will warn if the Forward CG Limit is exceeded. Row 87 does the same for the Aft CG Limit. Row 88 will warn if the Maneuver Load Limit is either 2.25 or 2.00 Gs. Row 89 references Figure 5-6 of T.O. 1C-5A-1 whenever the CG is less than 25% of MAC.

A2.20. Ref. 16. Takeoff Condition. Lotus computes the sum of all weight and moment information from Refs 1 through 15, and displays it in cells E90 and F90, respectively.

A2.21. Ref. 17: Takeoff CG in % MAC. Lotus computes the takeoff center of gravity to the nearest tenth of a percent, and displays it in cell E91.

NOTE:

Rows 92 through 96 monitor the takeoff condition for various situations, and display a warning if any of these conditions occur. Row 92 will warn the user if the takeoff weight is exceeded. Row 93 will warn if the Forward CG Limit is exceeded. Row 94 does the same for the Aft CG Limit. Row 95 will inform the user of Limited Ground Handling. Row 96 will warn if the Maneuver Load Limit is 2.25 Gs.

A2.22. Ref. 21: ZFW (Ref. 14). Cells E97 and F97 display a duplicate of the weight and moment in cells E83 and F83. Lotus computes these values.

A2.23. Ref. 22: Less Airdrop Load. Input the weight of the airdrop load in cell E98. Input the moment in cell F98.

CAUTION

Do NOT input these as negative numbers. Lotus will subtract the weight and moment from the zero fuel condition. If you input a negative number, Lotus will ADD that number to zero fuel instead of subtracting it.

A2.24. Ref. 23. Estimated Landing Fuel. Go to cell E99 to input the weight of **standard sequence** landing fuel. Lotus will compute the moments from this. Cells E101 and F101 will display the total landing fuel weight and moments, respectively.

CAUTION

In the event the user must enter a **non-standard sequence** landing fuel, do not enter that information here. See the instructions on non-standard sequence fuel procedures later in this manual.

A2.25. Ref. 24. Estimated Landing Condition (COND). Lotus computes the sum of all weight and moment information from Refs 1 through 23, and displays it in cells E102 and F102, respectively.

A2.26. Ref. 25. Estimated Landing CG in %MAC. Lotus computes the landing center of gravity to the nearest tenth of a percent, and displays the information in cell E103.

NOTE:

Rows 104 through 108 monitor the takeoff condition for various situations, and displays a warning if any of these conditions occur. Row 104 will warn the user if the landing weight is exceeded. Row 105 will warn if the Forward CG Limit is exceeded. Row 106 does the same for the Aft CG Limit. Row 107 will warn if the Landing Sink Rate must be limited to 360 Feet Per Minute (FPM) because of fuel weight. Row 108 does the same for aircraft landing weight.

A2.27. Limitations Section.

A2.27.1. WEIGHT. Lotus displays the limiting weight for Takeoff (cell D111), Landing (cell E111), and Zero Fuel (cell F111). Change may be made to these values at any time depending on aircraft takeoff performance, non-standard fuel weight limits, or runway condition. Lotus computes the applicable weights in rows 112 through 114. Allowable cabin load (ACL) for each condition is computed and displayed in row 115. Row 116 messages warn you if any of the ACLs are exceeded.

A2.27.2. CENTER OF GRAVITY. Lotus computes the permissible forward and aft CG limits for takeoff (cells E118 and F118), landing (cells E119 and F119), standard fuel sequence zero fuel (cells E120 and F120), and non-standard fuel sequence zero fuel (cells E121 and F121).

NOTE:

Rows 122 through 124 monitor for a non-standard fuel condition and warn of additional limitations if this occurs. Row 122 warns of a non-standard fuel condition. Row 123 warns indicates the airspeed limit of 280 KCAS/Mach .825. Row 124 references Figure 5-7 of T.O. 1C-5A-1.

A2.29. Load shift "What If" Section. This section allows "what if" scenarios for a load shift problem. Column A is for Lotus to compute the answer. Columns C and D are for input of available information. Row 128 allows input of information for a CG change. Row 131 allows the input of information for a required load shift weight. Row 134 allows the input of information for a required load shift arm.

CAUTION

Do not accomplish a cargo load-shift by using the Lotus 1-2-3 [R]ange [M]ove feature. To do so will cause cell errors that cannot be corrected unless the-load the worksheet is re-installed. To accomplish a load-shift, use the [R]ange [C]opy and [R]ange [E]rase features.

CAUTION

Do NOT copy or move the contents of a protected cell into an unprotected cell. To do so will add cell protection to the unprotected cell, rendering it unusable.

A2.30. Aircraft Basic Weights And Moments. This section allows the update of information for every C-5 in the inventory. The information that can be updated are the basic weight, basic moment, date of last weighing, and current assignment/home station.

A2.31. Cargo Load Graph. A graph is provided for your information. Press [F10] to display a graph showing the left and right cargo weights and positions on the cargo floor. Press [F10] again to return to the Lotus worksheet.

A2.32. Macros. The worksheet provides 31 macros for automating repetitive keystrokes. These macros will perform a variety of functions. They can erase or reset data, quickly go to different areas of the worksheet to verify information, and save or set up the information sheet for printing. To access the menu, press ["SHIFT"], [F3]. The first four macros will appear across the top of the worksheet. Pressing [F3] again shows all the macros. Using the cursor keys, highlight the desired macro and press [ENTER] to start it. The macro menu is displayed below.

SEND FORM F	**RESET ARMS**	**RESET LIMITS**	**ERASE CARGO WTS**
ERASE PAX INFO	**GOTO ACFT INFO**	**GOTO CG INFO**	**GOTO FE INFO**
GOTO LIMIT INFO	**GOTO PAX INFO**	**GOTO TROOP WTS**	**NSF0 T.O. INFO**
NSF1 M1&4 INOP	**NSF2 M2&3 INOP**	**NSF3 A1&4 INOP**	**NSF4 A2&3 INOP**
NSF5 X1&4 INOP	**NSF6 X2&3 INOP**	**NSF7 LAND INFO**	**NSF8 ERASE ALL**
RESET OP AADPC1	**RESET OPS C-3**	**RESET OPS AADC1**	**RESET OPS AADP1**
RESET OPS AP-1	**RESET OPS CP-3**	**RESET OPS CP3E**	**RESET OPS SADC1**
RESET OPS SADP1	**RESET OPS SP-1**	**SAVE FORM F**	

A2.33. Macros Description.

A2.33.1. SEND FORM F. Saves the Weight and Balance Information Sheet in ASCII text format for later infrared printing. The path and name of the file is C:_DAT\F.PRN. In this format, the file can not be retrieved by Lotus. To save the Form F in Lotus 1-2-3 format, start the SAVE FORM F macro. See the instructions on PRINTING THE FORM F TO PRINTER later in this manual.

A2.33.2. RESET ARMS. Erases any Fuselage Station entries that were made in columns A and D and fills them in again with the default pallet centroids.

A2.33.3. RESET LIMITS. Goes to the limitations block and resets the takeoff, landing, and zero fuel weight limitations to the normal values as listed in section V of T.O. 1C-5A-1.

A2.33.4. ERASE CARGO WTS. Erases all cargo entries that were made in columns B and C.

NOTE:

This erases the entire cargo area. Therefore, it isn't a good idea if erasure of only a small amount of data is needed. Press [Menu], [R]ange, [E]rase to do this. See the related topic in the Quick Reference List.

A2.33.5. ERASE PAX INFO. Erases any passenger number/weight and baggage weight/centroid inputs, and resets them to either zero or their default values.

A2.33.6. GOTO [information]. Any macro with the word "GOTO" in the name places the cursor in an area in the worksheet to verify and/or edit the information. Aircraft basic weight and moments, center of gravity, Flight Engineer takeoff data, limitations, passenger information, and troop configurations/weights areas of the worksheet can be found with these macros.

A2.33.7. NSF0 T.O. INFO. This is the first of the non-standard fuel sequence macros. The macro brings up an area in the worksheet where review of the information for non-standard takeoff fuel weight and moments.

A2.33.8. NSF (1-6) [tanks] INOP. These macros, prompt the user for the inoperative tank, and the macro changes the weight limitations to those given in Section V of T.O. 1C-5A-1.

A2.33.9. NSF 7 LAND INFO. This enables the user to review the information in the worksheet for non-standard landing fuel weight and moments.

A2.33.10. NSF 8 ERASE ALL. This erases all non-standard fuel information, and resets the takeoff and zero fuel weight limits to the default values.

A2.33.11. RESET OPS [configuration]. Any macro with the words "RESET OPS" in the name goes to References 5, 6, and 7, and enters the default values for whatever configuration you have selected. This information is taken from MCI 11-203.

NOTE:

These default values will be close for most configurations. However, for specific configuration, reference AFI 11-2C-5, Volume 3, Addenda A.

A2.33.12. SAVE FORM F. Saves the Form F in Lotus 1-2-3 format for later retrieval by Lotus. The path and name of the file is C:_DAT\365-4-1A.WK1. In this format, the file cannot be printed. To save the Form F in ASCII text format for printing, start the SEND FORM F macro.

A2.34. Non-Standard Fuel Sequence Procedures. In order to compute fuel moments for a non-standard fuel sequence more detailed information is needed than the total fuel weight. Provide individual tank gauge readings, among other things.

A2.34.1. ENTERING NON-STANDARD TAKEOFF FUEL WEIGHT. Go to cell E21 and enter 0 to zero-out the T.O. FUEL (Standard) entries. Cursor down to row 22 to T.O. FUEL (Non-Stan). Using the right cursor key, move right to cell H22. Above this cell, the following will be on the screen:

Main1	The tank's name.
23.826	The tanks gauge reading for maximum fuel.
4.100	The minimum gauge reading required for the fuel to cover the fuel boost pumps (From T.O. 1C-5A-1S-357, and remains in).

OK	Changes to “Exceed” if a number is entered that exceeds the capacity of the tank.

NOTE: This information is duplicated for each tank. Enter the gauge reading for each tank, Lotus computes the fuel weight. Typing the gauge reading and continuing to cursor right will allow the input of the gauge reading for each tank in the same sequence as it appears on the Flight Engineer panel. When entering the last gauge reading for tank Aux4, cursor to the right, and this completes the fuel gauge inputs.

A2.34.2. VERIFY TAKEOFF FUEL WEIGHT. First, press [“SHIFT”], [F3]. This will access the macro menu. Select the macro titled “NSF0 T.O. INFO.” Press [ENTER], and the user will be transported to cell H9, the top left corner of the non-standard fuel information section. Column H contains notes warning if the capacity of any tank set is exceeded. Column I lists the maximum capacity of each tank set. Column J lists the name of each tank set. Column K lists the tank set actual non-standard fuel weights as computed from gauge reading inputs, with the total non-standard fuel weight in cell K16. This information is copied to cell E22. Column L lists the tank set computed non-standard fuel moments, with the total non-standard fuel moment in cell L16. This information is copied to cell F22.

A2.34.3. SELECTING THE INOPERATIVE TANK SET. Press [“SHIFT”], [F3], and select the macro for the tank set that is inoperative. After pressing [ENTER], Lotus changes the default weight limitation values for Takeoff and Zero Fuel to those listed in section V of T.O. 1C-5A-1.

A2.34.4. ENTERING NON-STANDARD LANDING FUEL. First, go to cell E99 and enter 0 to zero-out the LANDING FUEL (Standard) entries. Now, cursor down to row 100 where you will see LANDING FUEL (Non-Stan). Using the right cursor key, move right to cell H100. Above this cell, you will see a duplicate of the tank information you saw for entering non-standard takeoff fuel. Entering information for landing fuel is essentially the same as for takeoff fuel.

Main1	The tank’s name.
23.826	The tank’s maximum gauge reading.
4.100	The minimum reading required for the fuel to cover the fuel boost pumps.
OK	A message to ensure you don’t enter a number that exceeds the tank capacity.

NOTE: This information is duplicated for each tank. You need only to enter the gauge reading for the tank, Lotus computes the fuel weight. Typing the gauge reading and continuing to cursor right will allow you to input the gauge reading for each tank in the same sequence as it appears on the Flight Engineer panel. When you have entered the gauge reading for Aux4, cursor right. You are finished with fuel gauge inputs.

A2.34.5. VERIFY LANDING FUEL WEIGHT. Press [“SHIFT”], [F3]. Select the macro titled “NSF7 LAND INFO.” Press [ENTER], and you will be transported to cell G85, the top left corner of the fuel information window. Column H contains notes warning if the capacity of any tank set is exceeded. Column I lists the tank set maximum capacity. Column J lists the tank set name. Column K lists the tank set actual non-standard fuel weights as computed from your gauge reading inputs, with the total non-standard fuel weight in cell K92. This information is copied to cell E100. Column L lists the tank set computed non-standard fuel moments, with the total non-standard fuel moment in cell L92. This information is copied to cell F100. At this point, no further inputs should be necessary.

A2.34.6. ERASE ALL. Press ["SHIFT"], [F3]. Select the macro titled "NSF8 ERASE ALL." Press [ENTER], and all fuel gauge entries will be erased, and the takeoff and zero fuel weight limitations will be reset to their default values.

A2.35. Quick Reference List.

A2.35.1. Change the aircraft basic weight and moments to match the Chart "C". After inputting the aircraft serial #, the basic weight and moment don't match with the weight and moment published on the Chart C. Start the automatic macros by pressing ["SHIFT"], [F3]. Using the cursor keys, highlight the "GOTO ACFT INFO" macro and press [ENTER]. You will be transported to the top of the Aircraft Basic Weight and Moments table. In column A is the aircraft serial #, column B contains basic weights, column C contains basic moments. Column D contains the last weighed date. Column E contains the home station of the aircraft. Column G contains the %MAC for the basic aircraft. Cursor down until you locate the aircraft in question. Now cursor to the right until the cursor is on the cell containing the basic weight. Type the NEW basic weight and press [ENTER]. Now cursor to the right. The cursor should now be on the cell containing the basic moment. Type the NEW basic moment and press [ENTER]. Cursor to the right once more. Enter the NEW weighing date and press [ENTER]. Go to the top of the worksheet by pressing [Fn], ["LEFT"]. You will now see that the new basic weights and moments appear in place of the old information.

A2.35.2. Erasing only some of the cargo weights. After performing a partial download (such as at an enroute station), it would be advantageous to erase only those weights for the cargo downloaded. To accomplish this, first, position the cursor at the top of the range to erase. Press (in order) [MENU], [R]ange, [E]rase. Using the cursor keys, move down to highlighted all the cargo weights that have been downloaded. Press the [ENTER] key. The range of weights highlighted will be erased, leaving the remainder of the cargo weights unaffected.

A2.35.3. Setting up the HP200LX to use the infrared interface for transferring files. Both palmtops must be configured using this procedure. Press [FILER], [MENU], [C]ommunications, [R]emote Settings. In the Baud box, use the cursor keys to select the radio button for "115200." Press [TAB]. In the Interface box, use the cursor keys to select the radio button for "Infrared." Press [TAB]. In the Phone box, ensure the radio button for "Tone" is selected. If not, use the cursor keys to select it. Press [TAB]. In the Server Mode box, use the cursor keys to select the radio button for "Enabled." Press [F10]. Now be back in the Filer.

A2.35.4. Connecting one palmtop to another by the infrared interface. First, ensure both palmtops are configured to use the infrared interface in accordance with the instructions printed above. Second, turn on both computers and start their Filer program. Third, align the infrared interface of each computer by aligning their row of keys with "789." The palmtop that is upside-down will be the "server", and the palmtop that is right-side up will be the "master." Now, on the master palmtop, if the screen is not split press [F7]. Cursor over to the right side of the screen, and press [F6]. The Information box saying "Please wait…Establishing remote connection" should be in view, followed shortly by the directory listing of the server palmtop displayed on the right side screen of the master palmtop.